Amendments to the Claims:

Kindly amend claims 1, 18, 21 and 24 and cancel claim 4. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A method for processing a first plurality of channels of video data at a second plurality of processors, comprising the steps of:

capturing a sample of data from each channel;

obtaining a measure of a complexity for each channel based on the ~~its~~ sample captured for that channel;

assigning each channel to at least one of the processors for processing thereat, wherein the processors comprise respective transcoders for transcoding the channels assigned thereto; and

maintaining a running balance of an accumulated complexity for each processor according to the complexity of the channel(s) assigned thereto; wherein:

the channels are assigned to the processors in an order ~~that is inverse to the channels' complexity~~ such that channels with relatively high complexity are assigned before channels with relatively low complexity.

2. (Original) The method of claim 1, wherein:

the channels are assigned to the processors such that the processor with the least accumulated complexity receives a next channel assignment.

3. (Original) The method of claim 1, wherein:

the channels are assigned to the processor such that the processor with a least portion of utilization receives a next channel assignment.

4. (Canceled)

5. (Original) The method of claim 1, wherein:
each of the samples comprises a plurality of video frames.

6. (Original) The method of claim 1, wherein:
the measure of the complexity for each sample is a function of group of pictures (GOP) structure thereof.

7. (Original) The method of claim 1, wherein:
the measure of the complexity for each sample is a function of a pixel resolution thereof.

8. (Original) The method of claim 1, wherein:
the measure of the complexity for each sample is a function of a frame rate thereof.

9. (Original) The method of claim 1, wherein:
the measure of the complexity for each sample is a function of an average macroblock rate thereof.

10. (Original) The method of claim 1, wherein:
the measure of the complexity for each sample is a function of a channel priority thereof.

11. (Original) The method of claim 1, wherein:
the measure of the complexity for each sample that has a first constant bit rate when assigned to the associated processor, and a second, different constant bit rate when

processed at the associated processor, is a function of a difference between first and second constant bit rates.

12. (Original) The method of claim 1, wherein:

the measure of the complexity for each sample is a function of a ratio of a number of B-frames to a number of P-frames and I-frames thereof.

13. (Original) The method of claim 1, wherein:

the running balance of accumulated complexity for each processor is incremented by the complexity of the channel(s) assigned thereto.

14. (Original) The method of claim 1, comprising the further step of:

preventing the assignment of a respective one of the channels to a respective processor if such an assignment will result in overloading the respective processor.

15. (Original) The method of claim 1, wherein:

the channels include at least one particular channel that requires more than one of the processors for processing; and

a plurality of portions of the particular channel are assigned to respective ones of the processors such that at least a first one of the portions consumes a maximum throughput of a respective one of the processors.

16. (Original) The method of claim 15, wherein:

the particular channel comprises high-definition television (HDTV) data.

17. (Original) The method of claim 1, wherein:

the channels are assigned to the processors in an order such that the most complex channel, or a selected one of a plurality of equally most complex channels, is assigned first, and the least complex channel, or a selected one of a plurality of equally least complex channels, is assigned last.

18. (Currently Amended) The method of claim 17, comprising the further steps of:

obtaining a measure of a resolution for each channel based on ~~its~~ the sample captured for that channel; and

maintaining a running balance of an accumulated resolution for each processor according to the resolution of the channels(s) assigned thereto.

19. (Original) The method of claim 18, wherein:

of the plurality of equally most complex channels, the one with the highest resolution is assigned first.

20. (Original) The method of claim 18, wherein:

of the plurality of equally least complex channels, the one with the lowest resolution is assigned last.

21. (Currently Amended) The method of claim 18, comprising the further steps of:

preventing the assignment of a respective one of the channels to a respective processor if such ~~as~~ an assignment will cause a sum of: (a) the accumulated resolution of the respective processor, and (b) the resolution of the respective channel, to exceed a predefined upper bound.

22. (Original) The method of claim 17, wherein:

the channels are assigned to the processors such that the processor with the least accumulated complexity receives a next channel assignment.

23. (Original) The method of claim 22, wherein:

if a plurality of processors have the same accumulated complexity, the one with the least accumulated resolution receives the next channel assignment.

24. (Currently Amended) An apparatus for processing a first plurality of channels of video data at a second plurality of processors, comprising:

means for capturing a sample of data from each channel;

means for obtaining a measure of a complexity for each channel based on ~~its~~ the sample captured for that channel;

means for assigning each channel to at least one of the processors for processing thereat, wherein the processors comprise respective transcoders for transcoding the channels assigned thereto; and

means for maintaining a running balance of an accumulated complexity of the channel(s) assigned thereto;

wherein:

the channels are assigned to the processors in an order that is inverse to the channels' complexity such that channels with relatively high complexity are assigned before channels with relatively low complexity.